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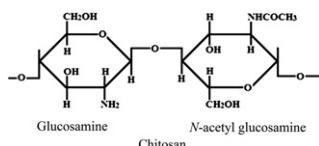
Reviews

Zhiyun Zhang, Ni Guan, Ting Li, Dale E. Mais and Mingwei Wang

Quality control of cell-based high-throughput drug screening.....429

Tapan Kumar Giri, Amrita Thakur, Amit Alexander, Ajazuddin, Hemant Badwaik and Dulal Krishna Tripathi

Modified chitosan hydrogels as drug delivery and tissue engineering systems: present status and applications.....439

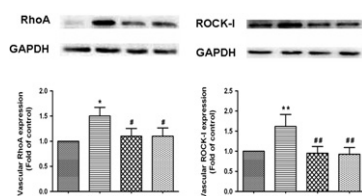


This paper reviews the general properties of chitosan, various methods of modification and applications of the modified chitosan hydrogels in drug delivery and tissue engineering.

Original Articles

Bainian Chen, Lili Shi, Xiaoyan Yu, Jialin Sun, Hengai Zhang, Shoubao Wang, Lianhua Fang and Guanhua Du

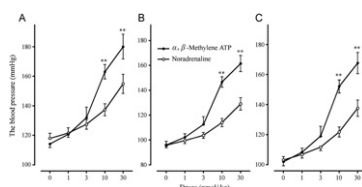
Differential effects of Rho-kinase inhibitor and angiotensin II type-1 receptor antagonist on the vascular function in hypertensive rats induced by chronic L-NAME treatment.....450



The Rho-kinase inhibitor fasudil and angiotensin II receptor antagonist valsartan exerted antihypertensive action on the L-NAME-treated rats, while only valsartan attenuated the cardiac hypertrophy. These findings suggest that the angiotensin II receptor antagonist interferes more with the contractile response than Rho-kinase inhibitor, whereas inhibition of Rho-kinase activity exhibits a better improvement on vasorelaxation than blockade of angiotensin II receptor.

Lu Li, Yi Wu, Mo Deng, Guangyi Wu and Leiming Ren

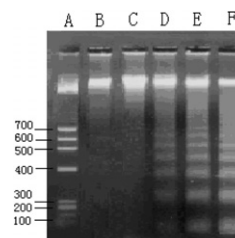
P2X₁ receptor-mediated pressor responses in the anesthetized mouse459



The effects of increasing intravenous doses of α,β -MeATP and noradrenaline (NA) (0–30 nmol/kg) administered at 20 min intervals on systolic, diastolic and mean blood pressure in groups of anesthetized mice ($n=6$) were compared. These results indicate P2X₁ receptors play an important role in BP regulation although purinergic vasoconstriction.

Zhengfu Zhang, Ying Guo, Lingwei Zhang, Jianbin Zhang and Xionghui Wei

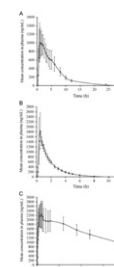
Chelerythrine chloride from *Macleaya cordata* induces growth inhibition and apoptosis in human gastric cancer BGC-823 cells.....464



Chelerythrine chloride (CHE) induces human gastric cancer BGC-823 cells apoptosis by a mechanism involving a reduction in the mitochondrial membrane potential, the release of cytochrome c, activation of caspase 3 and cleavage of poly-ADP-ribose polymerase, accompanied by down-regulation of Bcl-2 and Bcl-2 proteins with no change in the levels of Bax proteins.

Murali Krishna Matta, Nageswara Rao Pilli, Jaswanth Kumar Inamadugu, Laxminarayana Burugula and Seshagiri Rao JVLN

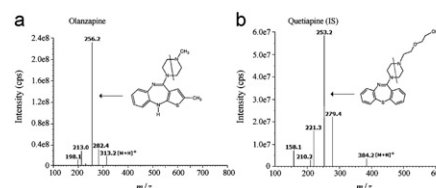
Simultaneous quantitation of lamivudine, zidovudine and nevirapine in human plasma by liquid chromatography–tandem mass spectrometry and application to a pharmacokinetic study472



A high throughput liquid chromatography–tandem mass spectrometric method (LC–MS/MS) for simultaneous determination of lamivudine, zidovudine and nevirapine in human plasma was fully validated and applied to a pharmacokinetic study.

Dinesh S. Patel, Naveen Sharma, Mukesh C. Patel, Bhavin N. Patel, Pranav S. Shrivastav and Mallika Sanyal

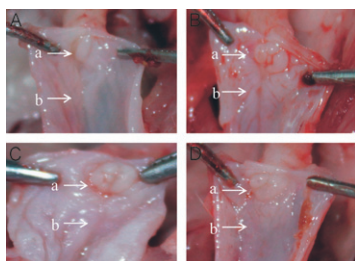
LC–MS/MS assay for olanzapine in human plasma and its application to a bioequivalence study481



A selective, sensitive and rugged liquid chromatography–tandem mass spectrometry (LC–MS/MS) assay for the determination of olanzapine in human plasma is developed and applied to a bioequivalence study of 40 healthy Indian male subjects under fasting and fed condition.

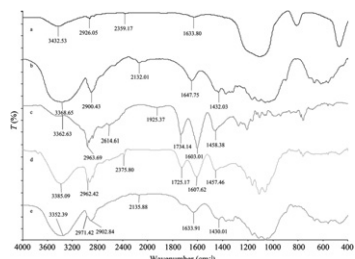
Shuqing Zhou, Xiaoling Zheng, Caihong Zheng, Fan Qu, Xuefen Cai and Juanhua Xu

A thermosensitive gel formulation of an empirical traditional Chinese prescription for treating cervical erosion495



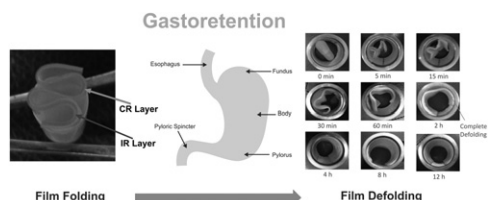
An empirical traditional Chinese prescription made up of six constituents for the treatment of cervical erosion has been formulated into a thermosensitive gel (five constituents) giving controlled release of berberine and a regular gel of catechu releasing catechin. The formulation was shown to be effective in an experimental rat model of cervical erosion.

Chella Naveen, Nalini Shastri and Rama Rao Tadikonda
Use of the liquisolid compact technique for improvement of the dissolution rate of valsartan502



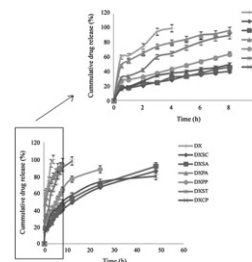
The dissolution rate of the poorly soluble drug valsartan was improved by formulation as a liquisolid compact using propylene glycol as solvent, Avicel PH102 as carrier, and Aerosil 200 as the coating material. The increase in the dissolution rate was significant compared to the marketed product at lower pH values which simulate the site of absorption in the upper gastrointestinal tract.

Sharad S. Darandale and Pradeep R. Vavia
Design of a gastroretentive mucoadhesive dosage form of furosemide for controlled release509



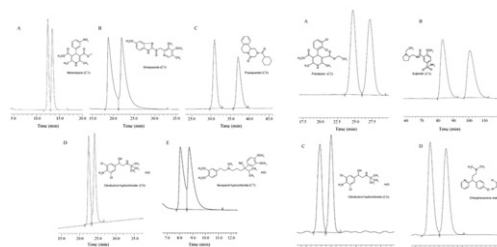
A gastroretentive bilayer mucoadhesive film of furosemide was developed with Carbopol[®] 971P NF, Eudragit RLPO and HPMC E4M as polymers and hydroxypropyl β -cyclodextrin as solubilizer.

Madhusmita Mishra and Brahmeshwar Mishra
Mucoadhesive microparticles as potential carriers in inhalation delivery of doxycycline hyclate: a comparative study518



This paper describes a comparative study of mucoadhesive polymers, including sodium carboxymethyl cellulose, sodium alginate, polyvinyl alcohol, polyvinylpyrrolidone, starch and carbopol, used in mucoadhesive microparticles as potential carriers in inhalation delivery of doxycycline hyclate.

Yan Wang, Ying Zhou, Chao Ma, Beibei Yang, Ru Feng, Yiyi Zhang, Jie Fu, Wenjing Chen, Yupeng Sun, Jingyi Ma, Qiming Zhang, Yulin Deng, Yukui Zhang and Wenyi He
High performance liquid chromatographic separation of eight drugs collected in Chinese Pharmacopoeia 2010 on amylose ramification chiral stationary phase527



Eight chiral drugs were separated by two amylose ramification chiral stationary phases, Chiralpak AD-H and Chiralpak AS-H, and the separation mechanism was interpreted.